

## **IN THE CLAIMS**

**1. (currently amended)** A system for reducing noise in a signal line, through which upward signals and downward signals are transmitted between a center and terminals, comprising:

a noise-reduction device, provided between the center and the terminals, which detects a noise increase regarding the upward signals on the signal line to generate a control signal indicative of the noise increase, and is triggered by said control signal to attenuate ~~attenuates~~ the upward signals by an increased amount ~~in response to the noise increase~~; and

a noise-control device, provided at the terminals, which boosts a transmission level of the upward signals by an amount compensating for the attenuation of the upward signals by said noise-reduction device.

**2. (original)** The system as claimed in claim 1, wherein said noise-reduction device includes:

a noise-level-check unit which makes a comparison between a signal component and a noise component that are obtained from the signal line, and detects a noise increase based on the comparison; and

a noise-reduction unit which includes an attenuator that attenuates the upward signals by the increased amount if said noise-level-check unit detects the noise increase, and which transmits a tone signal via the downward signals if said noise-level-check unit detects the noise increase.

**3. (original)** The system as claimed in claim 2, wherein said noise-control device includes:

a tone-detection unit which detects the tone signal; and  
a variable amplifier which boosts amplification of the upward signals by an amount compensating for the attenuation of the upward signals by said attenuator.

**4. (original)** The system as claimed in claim 1, wherein one or more noise-reduction devices including said noise-reduction device are provided in one or more of a two-way-amplification unit and splitter units provided between the center and the terminals.

**5. (original)** The system as claimed in claim 4, wherein said noise-control device boosts the transmission level of the upward signals by an amount compensating for a total attenuation of the upward signals by all of said one or more noise-reduction devices.

**6. (original)** The system as claimed in claim 1, wherein said noise-reduction device includes:

a unit which obtains a level of a signal component demodulated through coherent detection of the upward signals;

a unit which obtains a level of a noise component demodulated through detection of noises observed on the signal line during a time period when no signal component is present; and

a check unit which makes a comparison between the level of the signal component and the level of the noise component, and detects a noise increase based on the comparison.

**7. (original)** The system as claimed in claim 1, wherein said noise-reduction device

includes:

a unit which obtains a level of a signal component demodulated through coherent detection of the upward signals;

a unit which obtains a level of a signal and noise components demodulated through detection of a high-frequency signal included within a frequency range of the upward signals;

a subtraction unit which obtains a noise level as a difference between the level of the signal component and the level of the signal and noise components; and

a check unit which compares the noise level with one of a reference level and the level of the signal component, and detects a noise increase based on the comparison.

**8. – 15. (canceled)**